



EU policy developments in the area of raw materials

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*GROW I.1 – Energy Intensive Industries, Raw
Materials and Hydrogen*



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Political context and mandate

***General goal:* The EU must act to become more resilient in coping with possible future shocks and crises, to increase its open strategic autonomy and to strengthen the diversity and security of its supply.**

The **Action plan for critical raw materials 2020** recommends 10 key areas of work for the EU to reinforce its strategic approach towards more resilient raw materials value chains - implementation ongoing.

- Establish the European Raw Materials Alliance (ERMA)
- Identify investments needs and projects
- Work on sustainable finance criteria for the mining, extractive and processing sectors
- Develop expertise and skills in mining, extraction and processing technologies
- Deploy Earth-observation programmes and remote sensing
- Develop R&I projects
- Develop strategic international partnerships
- Promote responsible mining practices



Political context and mandate

Versailles Declaration, 10 and 11 March 2022

EU Leaders underlined that critical raw materials sector will be instrumental in addressing our strategic dependencies, particularly in the most sensitive areas.

The EU will secure EU supply by means of strategic partnerships, exploring strategic stockpiling and promoting a circular economy and resource efficiency.

REPowerEU Plan, May 2022 – Achieving the REPowerEU goals will require diversifying the supply of critical raw materials, reducing sectoral dependencies, overcoming supply chain bottlenecks and expanding the EU’s clean energy technology manufacturing capacity.

State of the Union Speech, September 2022 - “Whether we talk about chips for virtual reality or cells for solar panels, the twin transitions will be fuelled by raw materials. But securing supplies is only a first step...We will identify strategic projects all along the supply chain, from extraction to refining, from processing to recycling. And we will build up strategic reserves where supply is at risk. This is why today I am announcing a **European Critical Raw Materials Act.**” (Ursula Von Der Leyen, President of the European Commission)

Our proposed ways forward

1. European Critical Raw Materials Act

Key objective: secure EU supply of CRM

Signalling priority needs

**Strengthening governance
and monitoring**

**Strengthening
EU value chain
(from extraction to
refining and recycling)**

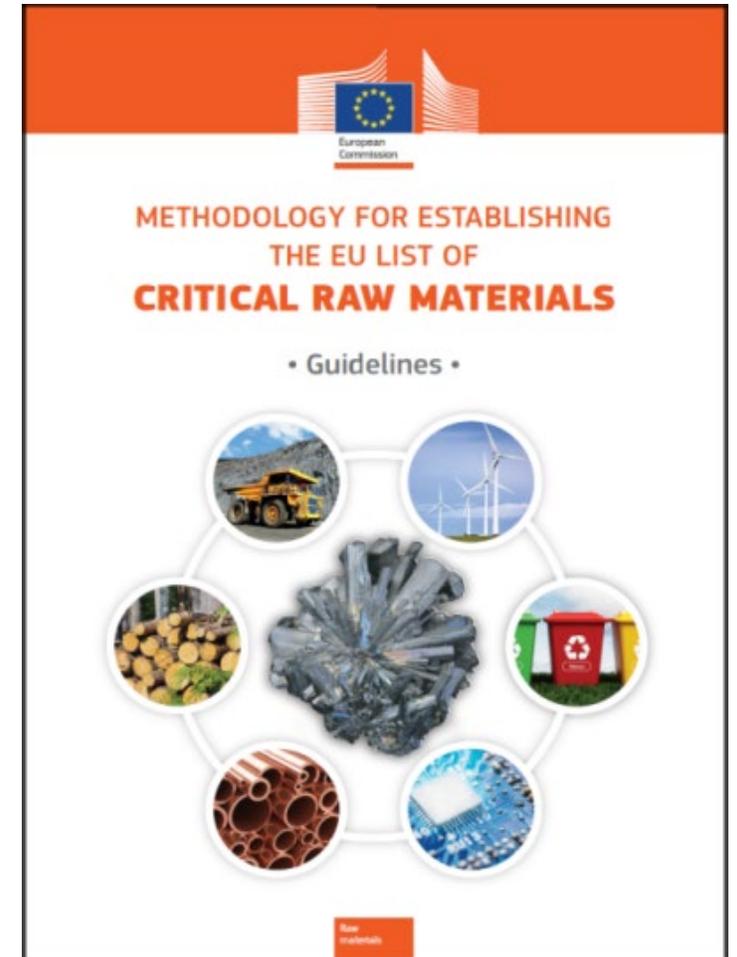
**Ensuring a Sustainable
level playing field**

**Pursuing supply
diversification, research
and innovation, skills**

EU Criticality Assessment

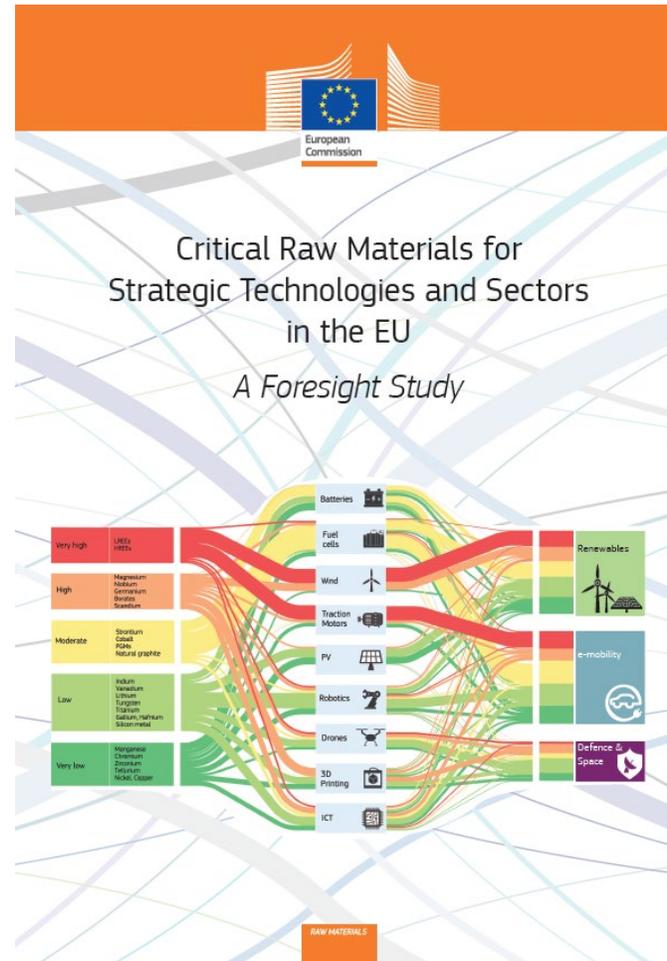
2020 Critical Raw Materials (new as compared to 2017 in bold)

Antimony	Hafnium	Phosphorus
Baryte	Heavy Rare Earth Elements	Scandium
Beryllium	Light Rare Earth Elements	Silicon metal
Bismuth	Indium	Tantalum
Borate	Magnesium	Tungsten
Cobalt	Natural Graphite	Vanadium
Coking Coal	Natural Rubber	Bauxite
Fluorspar	Niobium	Lithium
Gallium	Platinum Group Metals	Titanium
Germanium	Phosphate rock	Strontium



Foresight on CRMs in technologies and sectors

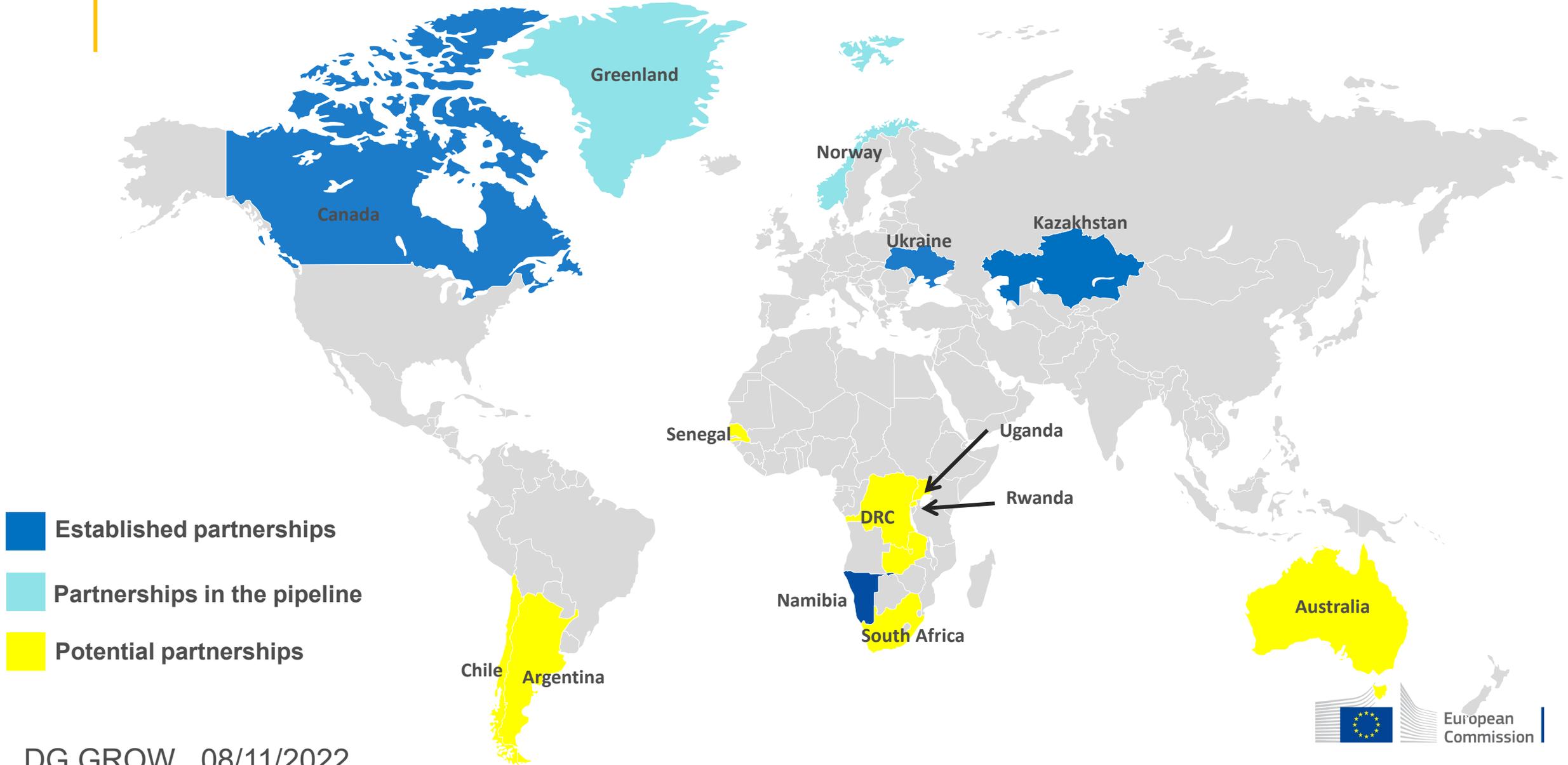
Technologies in 2020
Drones
Robotics
Wind
Traction motors
Batteries
Fuel cells
Solar PV
3D printing
ICT



Additional Technologies
Electrolysers
Smartphones/tablets/lap tops
Data storage & servers
Heat pumps
Data transmission networks
Rocket launchers & satellites
H ₂ -Direct Reduction of Iron

Our proposed ways forward

3. EU strategic partnerships on raw materials





Our proposed ways forward 3. Research and Innovation

Raw Materials in Horizon Europe (2021-2022)

~ EUR 300 mln budget, 2021-2022

6 topics in 2021

**Opening: 22 Jun 2021
Deadline: 23 Sep 2021**

7 topics in 2022

**Opening: 12 Oct 2021
Deadline: 30 Mar 2022**

**Work Program of Cluster 4, Digital, Industry and
Space:**

Funding portal:

[wp-7-digital-industry-and-space_horizon-2021-2022_en.pdf \(europa.eu\)](#)

[Funding & tenders \(europa.eu\)](#)

Raw materials topics for 2021

Topic	Budget	Projects	€ per project	Year
Innovation for responsible EU sourcing of primary raw materials, the foundation of the Green Deal	30 mln	4	7,5 mln	2021
Building innovative value chains from raw materials to sustainable products	36 mln	3	12 mln	2021
Sustainable and innovative mine of the future	36 mln	3	12 mln	2021
Reducing environmental footprint, improving circularity in extractive and processing value chains	36 mln	3	12 mln	2021
Building EU-Africa partnerships on sustainable raw materials value chains	8 mln	1	8 mln	2021
Identifying future availability of secondary raw materials	13,5mln	1	13,5 mln	2021
Developing climate neutral and circular raw materials	36 mln	3	12 mln	2021

Raw materials topics for 2022

Topic	Budget	Projects	€ per project	Year
Monitoring and supervising system for exploration and future exploitation activities in the deep sea	14 mln	1	14 mln	2022
Technological solutions for tracking raw materials flows in complex supply chains	13,5 mln	1	13,5 mln	2022
Earth observation technologies for the mining life cycle in support of EU autonomy and transition to a climate neutral economy	13,5 mln	3	4,5 mln	2022
Developing digital platforms for the small scale extractive industry	15 mln	3	5 mln	2022
Streamlining cross-sectoral policy framework throughout the extractive life-cycle in environmentally protected areas	2,4 mln	1	2,4 mln	2022
Innovative solutions for efficient use and enhanced recovery of mineral and metal by-products from processing of raw materials	36 mln	4	12 mln	2022



Raw Materials in Horizon Europe (2023-2024) *

Work Program of Cluster 4, Digital, Industry and Space

~ EUR 250 mln budget, 2023-2024

6 topics in 2023

EUR 118 mln

Opening: 1 Dec 2022
Deadline: 20 Apr 2023

5 topics in 2024

EUR 91,2 mln

Opening: 19 Sep 2023
Deadline: 7 Feb 2024

*The 2023-2024 Work Programme is to be adopted last week of November 2022, this is only indicative information